

LISTING ACTIONS

During June and July of 2000, the Fish and Wildlife Service published the following Endangered Species Act (ESA) listing actions in the *Federal Register*. The full text of each proposed and final rule can be accessed through our website:

<http://endangered.fws.gov>.

Listing Proposals

Three Pacific Plants On June 1, we proposed to list three plant species endemic to the Mariana Islands in the Pacific Ocean as endangered. *Nesogenes rotensis*, a herbaceous perennial in the verbena family (Verbenaceae), and *Osmoxylon mariannense*, a spindly tree in the ginseng family (Araliaceae), are found only on the island of Rota in the U.S. Commonwealth of the Northern Mariana Islands. The third, *Tabernaemontana rotensis*, a small tree in the dogbane family (Apocynaceae), occurs on Rota and the U.S. Territory of Guam in the southern Marianas.

The three plant species are threatened primarily by loss of their native habitat. Over the years, native vegetation on Rota and Guam has been altered by ranching, invasive alien plant and animal species, agricultural and recreational development, road construction, and military activities during World War II. Both islands also have been struck frequently by typhoons. Thirty or fewer mature plants remain of each of the three species. With so few plants remaining, another storm could eliminate any of the three species.



Osmoxylon mariannense

USFWS photo

Buena Vista Lake Shrew (*Sorex ornatus relictus*) A small, insect-eating mammal, the Buena Vista Lake shrew is a unique part of the historic San Joaquin Valley ecosystem in California. It now occurs only in the southern end of the valley and is in danger of extinction. On June 1, we proposed to list this animal as endangered.



Photo © B. Moose Peterson/WRP

Biologists believe that the Buena Vista Lake shrew once occurred widely in the marshlands of the Tulare Basin. By the time biologists discovered the shrew in 1932, most of these marshes were drained or dried up by water diversions. Today, the species has lost more than 95 percent its historic habitat. It is already listed by the State of California as a species of special concern.

This remaining population is threatened primarily by agricultural activities, modifications of local hydrology, uncertain water supply, possible toxic effects from selenium leached out of irrigated farm fields, and natural events (such as drought) that could wipe out the small number of remaining animals. Water is a vital component of the shrew's environment because of the moisture required to support the variety of insects that comprise its food source.

The Buena Vista Lake shrew eats more than its own weight each day to support its high metabolism. Shrews benefit surrounding plant communities by consuming large quantities of insects, slugs, and other invertebrates, including agricultural pest species.

Chiricahua Leopard Frog (*Rana chiricahuensis*) On June 14, we proposed to list the Chiricahua leopard frog as threatened due to the effects of non-native predators, disease, habitat loss, and potential natural events, such as floods and drought. The proposal includes a special rule encouraging ranchers to continue their regular management of livestock tanks (impoundments maintained as livestock watering holes) that harbor leopard frogs.

The Chiricahua leopard frog is found in ponds, streams, stock tanks, and other aquatic sites in the mountains of central and east-central Arizona and west-central New Mexico, and in the mountains and valleys of southeastern Arizona and southwestern New Mexico. The species is also known from several sites in Chihuahua, and from single sites in Sonora and Durango, Mexico.

The causes of the species' decline are not completely clear, but biologists believe the frog faces a variety of threats, including nonnative predators (particularly fish, bullfrogs, and crayfish), habitat loss and fragmentation, disease, and environmental contamination. The species apparently has disappeared from entire mountain ranges, valleys, and river drainages within its historic range.

A wide variety of organizations and individuals are involved in Chiricahua leopard frog conservation activities. The Nature Conservancy and New Mexico Game and Fish Department are undertaking conservation efforts on the Mimbres River. Ranchers in southeast Arizona's San Bernardino Valley are working with the University of Arizona and San Bernardino National Wildlife



Photo by A. Rorabaugh

Refuge to construct and maintain habitat for frogs. The Tonto National Forest, Phoenix Zoo, and Arizona Game and Fish Department have reared frogs in captivity and established or reintroduced populations in the Gentry Creek area. Students at Douglas High School and Douglas Public School District in southeast Arizona also have created award-winning outdoor classrooms for the rearing of leopard frogs.

The frog historically occurred at 212 sites in Arizona, 170 sites in New Mexico, and 12 or 13 sites in Mexico. Since 1995, the frog has been found at only 52 Arizona and 27 New Mexico sites, while the status of populations in Mexico is unknown. Of the 79 remaining U.S. populations, 47 occur on Forest Service lands, mostly in the Coronado National Forest. Some can also be found in the Apache-Sitgreaves, Tonto, and Coconino National Forests in Arizona and the Gila National Forest in New Mexico. The other populations are primarily on private lands.

Many Chiricahua leopard frog populations occupy stock tanks. The special rule in the proposed listing is designed to allow operation and maintenance of stock tanks that support frogs on non-federal land without the usually required permits authorizing "take" of a listed species, should the maintenance incidentally harass, harm, or kill a leopard frog.

We plan to work with other federal agencies and local planning groups to restore and conserve wetlands that provide vital habitat for the species. Controlling non-native aquatic species will also be necessary for the survival of the frog.

Reclassification Proposals

Large-flowered Skullcap (*Scutellaria montana*) Habitat protection and the discovery of additional populations led us to propose on July 12 to reclassify this endangered wildflower from endangered to the less critical status of threatened. The large-flowered skullcap, a perennial herb, grows on rocky, dry slopes, ravines, and stream bottom forests in the ridges, valleys, and Cumberland Plateau of northwestern Georgia and adjacent southeastern Tennessee.



Corel Corp. photo

Gray Wolf (*Canis lupus*) As reported previously in the *Bulletin*, we proposed on July 13 to recognize the improving status of the gray wolf in the conterminous 48 states by reclassifying most populations from endangered to threatened. The proposal, if approved, would reorganize wolf management by establishing four distinct population segments (DPSs). Gray wolves in the Western Great Lakes DPS (including Minnesota, Michigan, North Dakota, South Dakota, and Wisconsin) and the Western DPS (including Montana, Wyoming, Idaho, Oregon, Colorado, Washington, Utah, and portions of Arizona and New Mexico) would be reclassified as threatened. Although there have been no recent verified reports of wolves in the Northeastern DPS (including Maine, New Hampshire, New York, and Vermont), this region does have high potential for wolf recovery, and any wolves returning there would also be classified as threatened. Wolves in the Southwestern DPS (including parts of Arizona, New Mexico, and Mexico), where the Service is continuing its efforts to reintroduce the Mexican gray wolf, will remain classified as endangered.

All or portions of 30 states (within the lower 48) lie outside the four DPS areas described above, and gray wolves are not believed to be present in those other parts of the country. The Service does not believe that wolf restoration in these areas is necessary in order to achieve wolf recovery; therefore, the proposed rule would remove any wolves that may occur there now or in the future from ESA protection.

Critical Habitat Proposals

Critical habitat, as defined in the ESA, is a term for a geographic area that is essential for the conservation of a listed species. Critical habitat designations do not establish wildlife refuge, wilderness area, or any other type of conservation reserve, nor do they affect actions of a purely private nature. They are intended to delineate areas in which federal agencies must consult with the Service to ensure that actions these agencies authorize, fund, or carry out do not adversely modify the critical habitat. Within designated critical habitat boundaries, federal agencies are required to consult only in those areas that contain the physical and biological features necessary for the species' survival and recovery; many developed areas within the boundaries no longer contain suitable habitat. Maps and more specific information on critical habitats are contained in the specific *Federal Register* notice designating each area. For more information on critical habitat designations in general, go to the website for our Endangered Species Listing Program (<http://endangered.fws.gov/listing/index.html>) and click on "About Critical Habitat."

Critical Habitat for Arroyo Southwestern Toad (*Bufo microscaphus californicus*)

Approximately 478,400 acres (193,600 hectares) fall within the boundaries of a critical habitat designation proposed on June 8 for an endangered amphibian, the arroyo southwestern toad. These lands encompass portions of Monterey, Santa Barbara, Ventura, Los Angeles, San Bernardino, Orange, Riverside, and San Diego counties in southern California. Arroyo toads have specialized requirements for breeding habitats: shallow, slow-moving streams and riparian areas that are disturbed naturally on a regular basis, primarily by flooding. Only those areas within the proposed critical habitat boundary that contain the primary constituent elements required by the toad would be considered critical habitat.

Critical Habitat for Arkansas River Shiner (*Notropis girardi*)

On June 30, we proposed a critical habitat designation for the threatened Arkansas River basin population of this small fish. The proposal covers approximately 1,160

miles (1,865 kilometers) of rivers and 300 feet (91 meters) of the adjacent riparian zone along portions of the Arkansas River in Kansas, Cimarron River in Kansas and Oklahoma, Beaver/North Canadian River in Oklahoma, and Canadian/South Canadian River in New Mexico, Texas, and Oklahoma. Conservation of riparian zones is important to allow for natural flooding patterns, channel changes, nutrient sources, buffering from sediment and pollutants, and side channels and backwater habitats for larvae and juvenile fish.

Critical Habitat for the Peninsular Bighorn Sheep (*Ovis canadensis*) Approximately 875,613 acres (354,343 hectares) in Riverside, San Diego, and Imperial counties in southern California were proposed on July 5 as critical habitat for this endangered population of bighorn sheep. It inhabits the Peninsular Mountain Ranges from the San Jacinto Mountains south to the Volcan Tres Virgenes Mountains in Baja California, Mexico. The sheep occur mostly on open slopes in the hot, dry desert regions where the land is rough, rocky and sparsely vegetated. During the dry months, the sheep tend to gather near sources of water.



Photo © B. Moose Peterson/WRP

Critical Habitat for Piping Plovers (*Charadrius melodus*) Two proposals to designate critical habitat for a small beach-nesting bird, the piping plover, were published July 6. One proposal addresses the endangered breeding population in the Great Lakes region. It would encompass 37 scattered units of mainly undisturbed Great Lakes shoreline totaling almost 189 miles (305 kilometers) in the states of Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Penn-

sylvania, and New York. Within these units, the proposal addresses areas of open, sparsely vegetated sandy habitats, such as sand spits or beaches associated with wide, unforested systems of dunes and inter-dune wetlands. Specific features needed by piping plovers are patches of vegetation, cobble, debris (such as driftwood), and other forms of protection for nests and chicks.

A separate July 6 proposal would designate critical habitat in the piping plover's wintering habitat along the coasts of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas. A total of approximately 1,672 miles (2,691 km) of shoreline along the Gulf and Atlantic coasts, and along the margins of interior bays, inlets, and lagoons, are included in the proposal.

Critical Habitat for the Zayante Band-winged Grasshopper (*Trimerotropis infantilis*) On July 7, we proposed to designate a 10,560-acre (4,230-ha) area in Santa Cruz County, California, as critical habitat for an endangered insect, the Zayante band-winged grasshopper. Associated with the Zayante soil series, this species inhabits a unique mosaic of northern maritime chaparral and coastal maritime ponderosa forest.

Critical Habitat for the Morro Shoulderband Snail (*Helminthoglypta walkeriana*) Approximately 2,566 acres (1,039 ha) in western San Luis Obispo County, California, were proposed on July 12 as critical habitat for the Morro shoulderband snail, an endangered mollusk. This species lives exclusively in or near sandy soils within coastal dune and scrub communities and maritime chaparral.

Critical Habitat for Zapata Bladderpod (*Lesquerella thamnophila*) On July 19, we proposed designating approximately 5,330 acres (2,157 ha) of the Lower Rio Grande National Wildlife Refuge in Starr County and several other small sites in Starr and Zapata counties as critical habitat for the Zapata bladderpod, an endangered plant known only from south Texas. The few remaining populations can occur on graveled to sandy-loam upland terraces above the Rio Grande floodplain.

Critical Habitat for the Mexican Spotted Owl (*Strix occidentalis lucida*) A July 21 proposal would designate nearly 13.5 million acres (5.5 million ha) in Arizona, New Mexico, Colorado, and Utah as critical habitat for a threatened bird, the Mexican spotted owl. Approximately 90 percent of the proposed acreage is federally managed land and the other 10 percent is comprised of Tribal land. No private or state lands were included in the proposal. Within these broad boundaries, however, we will require ESA consultation only in those areas that contain suitable habitat for the owl; towns and other developed areas would not be considered critical habitat.

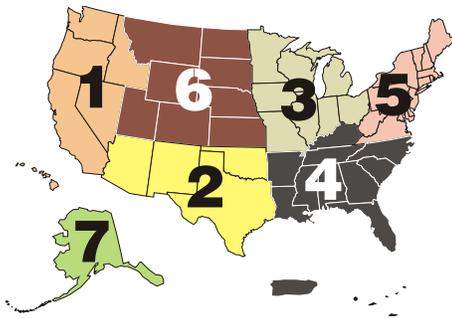
Final Listing Rules

Short-tailed Albatross (*Phoebastria albatrus*) With a population of fewer than 600 breeding individuals, the short-tailed albatross is one of the world's rarest birds. Although it has been classified since 1970 as endangered, the albatross, which breeds only on two remote Japanese islands, was listed solely as a foreign species. Because of this oversight, the far-ranging seabird was not legally protected under the ESA when it ventured into Alaska, Washington, Oregon, California, and Hawaii. To correct this administrative error, the Service published a final rule on July 31 extending ESA protection to the short-tailed albatross in the U.S.

Steelhead (*Oncorhynchus mykiss*) On June 7, the National Marine Fisheries Service (which has primary ESA jurisdiction for most marine species) published a final rule listing the northern California "ecological significant unit" of the steelhead as threatened. Only anadromous steelhead were covered under the rule.



Illustration © by Rochelle Mason, www.rmasonfinearts.com



Regional endangered species staffers have reported the following news:

Region 4

Loggerhead Sea Turtle (*Caretta caretta*)

During August 2000, the National Sea Turtle Coordinators for the Fish and Wildlife Service (Service) and National Marine Fisheries Service attached satellite transmitters to five loggerhead sea turtles at the Archie Carr National Wildlife Refuge in Florida, with assistance from the University of Central Florida. Florida beaches account for 90 percent of loggerhead nesting in the southeastern United States, a population that is the largest in the western hemisphere and one of the two largest in the world.

We attached satellite transmitters to turtles that had just finished nesting. Each transmitter is attached to the shell with fiberglass cloth and polyester resin, and is designed to fall off harmlessly when the batteries are exhausted. The transmitter sends out radio signals through a small

antenna to be received by one of several polar orbiting National Oceanic and Atmospheric Administration satellites that collect environmental data around the world. The satellite re-transmits the data back to earth, where it is processed and made available to researchers.

This collaborative effort is aimed at locating the migratory routes and principle foraging habitats of Florida loggerheads after they nest. The collected data will help identify the threats that sea turtles may encounter while traveling to and from their nesting beaches and while residing at their foraging areas. This information will be of vital importance to the Services in determining where international cooperative efforts should be focused to ensure recovery of these shared sea turtle resources.

During 1998 and 1999, 10 satellite transmitters were deployed at the Archie Carr refuge. The results indicate that post-nesting Florida loggerheads migrate over long distances and may travel through, and reside in, the waters of other nations, including Cuba, the Bahamas, and Mexico.

The public can follow the journey of these five turtles via the Internet at <http://www.ccturtle.org> as part of a public education project spearheaded by the Caribbean Conservation Corporation's Sea Turtle Survival League.

Reported by Sandy MacPherson of the Service's Jacksonville, Florida, Field Office.

Region 5

Seabeach Amaranth (*Amaranthus pumilus*)

A threatened plant, the seabeach amaranth was recently rediscovered in three States within its historical range: New Jersey, Delaware, and Maryland. Seabeach amaranth occurred historically in nine states from Massachusetts to South Carolina, but was previously considered extirpated from six of these states. Prior to the recent discoveries, the plant was known to exist only in New York, North Carolina, and South Carolina.

Staff from the U.S. Army Corps of Engineers' New York District, the New Jersey Conserve Wildlife

Foundation, and the Service's New Jersey Field Office discovered several occurrences of the plant in Monmouth County, New Jersey, in July 2000. The Service alerted National Park Service staff at the nearby Sandy Hook Unit of the Gateway National Recreation Area and recommended surveys. Subsequent searches documented four additional seabeach amaranth sites at Sandy Hook. The last known occurrence of seabeach amaranth in New Jersey was in 1913, and the plant had not been found in Monmouth County since 1899. Seabeach amaranth was also documented in Delaware this year after an absence of 125 years, and it was found in Maryland in 1998 after being extirpated from that state for more than 30 years. Recent surveys have documented approximately 4 plants in Maryland, 50 plants in Delaware, and more than 1,000 plants in New Jersey.

The Monmouth County municipal beaches where the plant was found were created by a Corps beach nourishment project in 1995. The Corps has since worked with the Service, the New Jersey Endangered and Nongame Species Program, and local municipalities to monitor and manage beach-nesting birds, including the piping plover (*Charadrius melodus*), using the newly created habitat. Staff from the Corps and our New Jersey Field Office have met with officials from Monmouth County municipalities to inform them of the plant's discovery, and to solicit their cooperation in protecting seabeach amaranth from threats associated with pedestrians and vehicles. The municipalities were receptive, and agreed to alert public works and emergency vehicle operators, and to permit fencing in high traffic areas containing large numbers of plants. The Service is also working with the municipalities to inform area residents about the newly discovered plant.

Efforts are also underway to restore seabeach amaranth populations in Maryland by planting seedlings, propagated from seeds of Maryland plants, on Assateague Island. The National Park Service, Maryland Wildlife and Heritage Division, and the Service are cooperating in this effort.

Biologists do not yet have enough information to determine how seabeach amaranth returned to New Jersey after its almost 90-year absence. Seeds



Loggerhead turtle

Photo by Mike Lubich



Seabeach amaranth

Photo by Mark Burlas

may have blown or floated from Long Island, may have washed up from the Carolinas during a tropical storm, or may have been buried in the offshore sands used to nourish the beach. Plants from the newly discovered populations in Delaware, Maryland, and New Jersey will be included in a genetics study of seabeach amaranth. Results of the study may provide insight into the plant's sudden reappearance in these three States.

Reported by Wendy Walsh of the Service's New Jersey Field Office.

Piping Plover During the 2000 piping plover breeding season, the Service's Long Island, New York, Field Office worked with approximately 25 partners consisting of federal, state, and local governmental agencies, as well as non-governmental organizations, to protect approximately 40 miles (65 kilometers) of coastal habitat along



Piping plover nest

Photo by Mark Burlas

the north and south shores of Long Island for breeding piping plovers and their chicks. Long Island supports approximately two-thirds of the New York-New Jersey recovery population for this species. The protection efforts consisted of fencing suitable breeding sites, surveying for breeding pairs, the protection of nests from predators through the use of predator exclosures, monitoring of chick productivity, and the protection of brood rearing areas from human disturbance.

Seabeach Amaranth The protection efforts undertaken by the Long Island Field Office and its partners for the protection of piping plovers allowed seabeach amaranth to flourish this year, with preliminary survey results indicating that Long Island supported over 130,000 plants this year. This is up from 12,000 plants observed during the 1999 seabeach amaranth survey. Seabeach amaranth, like the piping plover, is a species that prefers early successional beach habitats. The Long Island Field Office and its partners are considering a number of restoration/enhancement proposals for implementation in 2001 that will further the conservation of these species.

Reported by Steve Papa of the Service's Long Island, New York, Field Office.

A wealth of further information on the subjects covered in this edition of the *Endangered Species Bulletin* is available on the Internet. Here are some websites to get you started:

"The Mystery of the Dying Eagles" — Additional information on the disease AVM is available at <http://www.mvk.usace.army.mil/offices/od/odm/avm>.

"Disease Strikes Again at Salton Sea" — For more information about the Salton Sea, disease outbreaks, and brown pelicans, see our website at www.rl.fws.gov/refuges/.

"A Unified Defense Against Invasive Species" — Details on our efforts to control invasive non-native species is available at <http://invasives.fws.gov/> or <http://www.invasivespecies.gov>.

"A New Threat to Frogs" — For more information on the Service's role in the amphibian malformation and deformity issue, and a complete list of the refuges that are being surveyed this year, check out the Amphibian Deformities section of the Service's Division of Environmental Quality website at <http://contaminants.fws.gov/>.

"Hawaiian Bird Chick is a First" — More information about the Maui parrotbill is available at <http://pacific.fws.gov/pacific/wesa/parrotmaui.html>.

BOX SCORE

Listings and Recovery Plans as of October 31, 2000

GROUP	ENDANGERED		THREATENED		TOTAL LISTINGS	U.S. SPECIES W/ PLANS**
	U.S.	FOREIGN	U.S.	FOREIGN		
 MAMMALS	63	251	9	17	340	47
 BIRDS	78	175	15	6	274	76
 REPTILES	14	64	22	15	115	30
 AMPHIBIANS	10	8	8	1	27	12
 FISHES	69	11	44	0	124	90
 SNAILS	20	1	11	0	32	20
 CLAMS	61	2	8	0	71	45
 CRUSTACEANS	18	0	3	0	21	12
 INSECTS	30	4	9	0	43	28
 ARACHNIDS	6	0	0	0	6	5
ANIMAL SUBTOTAL	369	516	129	39	1,053	365
 FLOWERING PLANTS	564	1	141	0	706	528
 CONIFERS	2	0	1	2	5	2
 FERNS AND OTHERS	26	0	2	0	28	28
PLANT SUBTOTAL	592	1	144	2	739	558
GRAND TOTAL	961	517	273	41	1,792*	923

TOTAL U.S. ENDANGERED: 961 (369 animals, 592 plants)
TOTAL U.S. THREATENED: 273 (129 animals, 144 plants)
TOTAL U.S. LISTED: 1,234 (498 animals***, 736 plants)

*Separate populations of a species listed both as Endangered and Threatened are tallied once, for the endangered population only. Those species are the argali, chimpanzee, leopard, Stellar sea lion, gray wolf, piping plover, roseate tern, green sea turtle, saltwater crocodile, and olive ridley sea turtle. For the

purposes of the Endangered Species Act, the term "species" can mean a species, subspecies, or distinct vertebrate population. Several entries also represent entire genera or even families.

**There are 530 approved recovery plans. Some recovery plans cover more than one species, and a few species have separate plans covering different parts of their ranges. Recovery plans are drawn up only for listed species that occur in the United States.

***Nine animal species have dual status in the U.S.

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